



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,140	04/25/2006	Klaus Kristen Olesen	6495-0157WOUS	3300

35301 7590 07/21/2010  
MCCORMICK, PAULDING & HUBER LLP  
CITY PLACE II  
185 ASYLUM STREET  
HARTFORD, CT 06103

EXAMINER
----------

CIRIC, LJILJANA V

ART UNIT	PAPER NUMBER
----------	--------------

3744

MAIL DATE	DELIVERY MODE
-----------	---------------

07/21/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/577,140	<b>Applicant(s)</b> OLESEN, KLAUS KRISTEN	
	<b>Examiner</b> Ljiljana (Lil) V. Ciric	<b>Art Unit</b> 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 20-35 is/are pending in the application.
- 4a) Of the above claim(s) 26-29 and 35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-25 and 32-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office action is in response to the reply filed on April 21, 2010.
2. Claims 20 through 35 remain in the application, all as amended either directly or indirectly.

### ***Response to Arguments***

3. Applicant's arguments filed on April 21, 2010 have been fully considered but they are not persuasive.

With regard to applicant's arguments relating to the objection to the drawings as cited by the examiner in the previous Office action, the examiner hereby notes that, contrary to applicant's arguments, for example, the line quality of the drawings is NOT sufficiently well-defined, particularly with regard to some of the hand-written reference characters (for example, the hand-written reference character "1" and the hand-written reference character "7" are generally indistinguishable) and with regard to some of the more detailed portions of the figures as noted in greater detail below.

Contrary to applicant's statement, the objections to the abstract raised by the examiner in the previous Office action have not been obviated via the submission of the amended abstract. See paragraphs 8 through 10 below for details.

Applicant argues that the examiner has failed to establish that each and every element cited in the examined claims is shown or disclosed by the Danfoss Silicon Power GmbH German Utility Model reference as required, and that the Office action furthermore fails to demonstrate that each and every element recited in the claims is found either expressly or inherently

Art Unit: 3744

described in the reference. In response, the examiner respectfully notes that the cited Danfoss Silicon Power GmbH German Utility Model reference is (a) by the same assignee as the instant application (i.e., Danfoss Silicon Power GmbH), but Figures 1 through 4 of the Danfoss Silicon Power GmbH reference are identical to corresponding Figures 1 through 4 of the instant application and of instant applicant's priority document, with even the reference characters appearing to be identical, with no further explanation appearing to be necessary than what was stated in the previous Office action. Furthermore, although applicant has elected the fourth species or the embodiment of Figure 11 for examination, it does not appear that the claims which are readable on the elected fourth species recite any elements in particular which are not shown by both Figures 1 through 4 of both the instant application and by identical Figures 1 through 4 of the Danfoss Silicon Power GmbH reference. Nevertheless, the examiner has expanded the rejection to include additional detail as requested by applicant.

On the other hand, applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

With regard to applicant's argument that a translation of the Danfoss Silicon Power GmbH German Utility Model reference is required so that the record is clear as to the precise facts relied upon in support of the rejection, the examiner notes that the previously translated abstract and the drawings reference are primarily relied on by the examiner in the rejections as cited in the current and previous Office actions although the examiner (who is sufficiently fluent in German to have fully understand and analyzed the German Utility Model reference without an

Art Unit: 3744

official translation) has already fully analyzed the reference as required. However, an English translation of the reference is being provided at this time to applicant in order to perfect the record as required.

#### ***Election/Restrictions***

4. Claims 26, 27 through 29, and 35 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to the nonelected first, second, third, fifth, and sixth species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on September 23, 2009. Note that originally applicant has indicated that claims 20 through 25 and 28 through 34 are readable on the elected species. However, claims 28 and 29 as written depend from withdrawn claim 27 and thus are also readable on the non-elected species.

#### ***Drawings***

5. The drawings filed on April 25, 2006 are still objected to because the line quality is generally uneven and poor and because some of the reference numbers are handwritten, whereas others are typed. Applicant is advised that the general clarity due to the line quality of the more detailed elements in particular as shown in the figures is poor (i.e., that of elements 4, 5, 6 in Figure 1; 4, 5, 6, 21/27, 22, 23 in Figure 7; 5, 6, 24, 25, 30, 37, 74, 77 in Figure 9; 5, 6, 20, 22, 23, 26, 27, 28, 29, 30, 37 in Figure 10; 3, 4, 7, 73 in Figure 11; 3 and 7 in Figure 12; 4, 73 in Figure 13; 4, 34 in Figure 14). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the

Art Unit: 3744

appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. Upon reconsideration, the drawings are also objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 70; 74, 75, 77. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

7. Receipt and entry of the amended abstract is hereby acknowledged.

Art Unit: 3744

8. The amended abstract of the disclosure is still objected to because it (a) does not avoid phrases which can be implied (i.e., "The present invention is directed to"; "The present invention is also directed to") and also because it still refers to the purported application and merits of the invention in both the third and in the last sentence of the abstract. Correction is required. See MPEP § 608.01(b).

9. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

10. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;

Art Unit: 3744

(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

### ***Claim Objections***

11. Claims 32 and 33 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 32 and 33 appear to depend from base claim 20, but fail to further limit claim 20 from which each depends, either directly or indirectly.

### ***Claim Rejections - 35 USC § 112***

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 20 through 25 and 30 through 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Upon reconsideration, the limitations "wherein the plurality of flow cells are connected in parallel between the manifolds and *are arranged in parallel in two directions between the manifolds*" are not clear as written because these constitute a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation in the same claim. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10



Art Unit: 3744

USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, base claim 1 recites the broad recitation "the plurality of flow cells are connected in parallel between the manifolds", and the claim also recites "are arranged in parallel in two directions between the manifolds", which is the narrower statement of the range/limitation.

Also, there is still insufficient antecedent basis in the claims for the limitation "the surface(s)" [claim 21, line 3; claim 30, line 5]. Furthermore, it is not clear whether the limitation "the surface(s)" recites one surface or more than one surface or one or more surfaces, thus further rendering indefinite the metes and bounds of protection sought by the claims.

Claim 34 provides for the use of a fluid-coolable unit but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 34 is also rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for

Art Unit: 3744

example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

***Claim Rejections - 35 USC § 102***

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States.

15. As best can be understood in view of the indefiniteness of the claims, claims 20 through 25 and 32 through 34 are rejected under 35 U.S.C. 102(a) as being anticipated by Danfoss Silicon Power GmbH (DE 202 08 106 U1, made of record by IDS).

Danfoss Silicon Power GmbH discloses the fluid-coolable unit essentially as claimed. Note that Figures 1 through 4 of Danfoss Silicon Power GmbH are identical to the same figures in the instant application and disclose all of the recited elements, including, for example: a housing 13, inlet and outlet manifolds 14 and 15; a baffle 4 defining a plurality of flow cells and flow channels as shown in Figures 1 through 4 of Danfoss Silicon Power GmbH and arranged exactly the same as the plurality of flow cells and flow channels of the instant application; and plates 2 and 11 defining surfaces to be cooled. The reference thus reads on the claims. Please note that the assignee for the abovementioned reference and for the instant application is the same, but that the inventive entities appear to be different.

The reference thus reads on the claims.

Art Unit: 3744

16. Also as best can be understood in view of the indefiniteness of the claims, claims 20 through 25 and 32 through 34 are rejected under 35 U.S.C. 102(d) as being barred by applicant's Danfoss Silicon Power GmbH (DE 202 08 106 U1, made of record by IDS).

As required, the Danfoss Silicon Power GmbH foreign application was filed in 2002, which is more than 12 months before the effective U.S. filing date of the instant application (i.e., more than 12 months before April 25, 2006). The Danfoss Silicon Power GmbH foreign application was filed by the assign of the instant application's applicant (i.e., by Silicon Power GmbH). The foreign patent or inventor's certificate (i.e., the German Gebrauchsmuster petty patent) has been actually granted. See *In re Monks*, 588 F.2d 308, 310, 200 USPQ 129, 131 (CCPA 1978); *American Infra-Red Radiant Co. v. Lambert Indus.*, 360 F.2d 977, 149 USPQ 722 (8th Cir.), cert. denied, 385 U.S. 920 (1966) (German Gebrauchsmuster petty patent was held to be a patent usable in a 35 U.S.C. 102(d) rejection. Gebrauchsmustern are not examined and only grant a 6-year patent term. However, except as to duration, the exclusionary patent right granted is as extensive as in the U.S.). And, last but not least, the same invention is involved. With regard to the latter, please also note that, while the Danfoss Silicon Power GmbH reference lacks Figure 11 on which the elected species is readable, so does the priority document (DK PA 2004 01577) on which the instant application relies for priority. Also see paragraph 15 above.

### ***Conclusion***

17. The additional references made of record and not relied upon are considered pertinent to applicant's disclosure even though some of these do not constitute prior art per se.

Art Unit: 3744

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric whose telephone number is 571-272-4909. The examiner works a flexible work schedule but can normally be reached on most days during the work week between the hours of 10:30 a.m. and 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ljiljana (Lil) V. Ciric/

Primary Examiner, Art Unit 3744